

ABSTRACT

The invention provides a catalyst for catalytic reduction of nitrogen oxides contained in exhaust gases wherein fuel is supplied and subjected to combustion under periodic rich/lean conditions and the resulting exhaust gases are brought into contact therewith, which catalyst comprises: (A) a catalyst component A comprising (c) ceria or (d) praseodymium oxide or (e) an oxide and/or a composite oxide of at least two elements selected from the group consisting of cerium, zirconium, praseodymium, neodymium, terbium, samarium, gadolinium and lanthanum; (B) a catalyst component B comprising (d) a noble metal catalyst component selected from the group consisting of platinum, rhodium, palladium and oxides thereof and (e) a carrier; and (C) a catalyst component C comprising (f) a solid acid, and (g) a solid acid supporting an oxide of at least one element selected from the group consisting of vanadium, tungsten, molybdenum, copper, iron, cobalt, nickel and manganese.

The catalyst reduces NO_x contained in exhaust gases wherein fuel is supplied and subjected to combustion with a periodic rich/lean excursions, whereby NO_x is generated in the exhaust gases, with high durability in a wide temperature range even in the presence of oxygen, sulfur oxides or water.